

COLSF 8.7.2 VI



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International Specialists in the Environment

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MEMORANDUM

RECEIVED
MAR 20 1995
SUPERFUND REMEDIAL BRANCH

DATE: March 16, 1995
TO: Neil Thompson
FROM: Lyle Diediker
Ref: Colbert Landfill
Work Assignment 20-05-OPO1
ZR6000

Hard copies of the contact reports that have been E-Mailed, apparently have not been sent yet. I have included copies here. The contact reports are on discussions between Mr. Dean Kuntz- (Ecology) and Mr. Ray Wayne(E & E) on the following dates;

February 2, 1995
February 9, 1995
February 10, 1995
March 13, 1995
March 14, 1995

Unless I hear directly from you, I will assume that this will conclude our involvement with assisting Ecology. If you need anything further, please do not hesitate to call.

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CONTACT REPORT

Meeting [] Telephone [x] Other []

AGENCY: State of Washington
Department of Ecology

ADDRESS: Olympia, Washington

PHONE NO: (206) 407-7239

PERSON
CONTACTED: Michael Kuntz
Managing Hydrogeologist, Toxics Clean-up Program

TO: Lyle Diediker

FROM: Raymond Wayne

DATE: March 14, 1995

SUBJECT: Extraction Well Radius Of Influence Identification
Colbert Landfill, Spokane County, Washington

1. Mike telephoned me to ask about alternative techniques for identifying the extraction wells radius of influence. The County told Mike that to identify the radius would require the installation of monitoring wells extending radially away from the extraction wells.

2. I said the number of additional wells depends on the level of uncertainty that Ecology could accept. Installing additional wells to resolve the issue appeared to be unnecessary at this time. I suggested that the ground water elevations measured in the extraction well area prior to pumping be contoured using a simple software program. Ground water elevations measured during extraction well pumping at the system design extraction rate, and representing steady-state conditions, should also be contoured. The pumping condition contours should be interpreted with respect to the pre-pumping contours in order to identify the radius of influence of the extraction wells. If sufficient water level measurement locations were available, Ecology would not need the pre-pumping contours. With insufficient data, the pre-pumping contours should assist identification of the boundary of the radius of influence. The capture zone is the portion of the aquifer upgradient of the extraction wells from which a migrating contaminant will flow toward the wells as a result of encountering the radius of influence. I said the technique I described should be tried using

existing data, and would provide a general radius of influence identification consistent with available data.



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ADDRESS: Olympia, Washington

PHONE NO: (206) 407-7239

PERSON
CONTACTED: Michael Kuntz
Managing Hydrogeologist, Toxics Clean-up Program

TO: Lyle Diediker

FROM: Raymond Wayne

DATE: March 13, 1995

SUBJECT: Monitoring Wells Downgradient Of The Extraction Wells
Colbert Landfill, Spokane County, Washington

1. Mike sent me a copy of the February 28, 1995, Department of Ecology response to Spokane County's January 30, 1995 letter addressing EPA and Ecology concerns. The letter was sent for my review on March 9, but no response was requested.

2. Mike telephoned on March 13 to request that I review specific sections of the Consent Decree. Spokane County contends that the monitoring wells located within the capture zones of the extraction wells should be considered downgradient for compliance purposes. The county's position is based on language in the footnote on page V-1 of the decree. Mike asked me to review the information he will FAX me and get back to him. Mike is concerned that the footnote will undercut his interpretation that additional monitoring wells downgradient of the extraction well and outside the capture zone are required by the decree.

3. I reviewed the information and telephoned Mike later the same day. We discussed the Consent Decree language and agreed that the footnote defined downgradient as being under pre-extraction pumping conditions. The monitoring wells are upgradient of the extraction wells during pumping because they are in the capture zone, but were downgradient prior to pumping. I pointed out that language in the Consent Decree may be interpreted as requiring downgradient

wells outside the capture zone in order to determine whether the extraction system was operating efficiently (page V-1, Section A.1.a). I said that the County's position on the wells would not provide the information needed to determine if the contaminant plume was migrating past the extraction wells and represented a potential risk to human health and the environment. I suggested that there may be language in the decree that addressed situations where information collected subsequent to the decree indicated that a specific technical requirement of the decree may not produce the intended result of the decree.

4. Mike said he would request that Neil Thompson authorize my telephone participation in the Monday, March 20 meeting between the County, EPA, and Ecology to discuss technical issues.



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AGENCY: State of Washington
Department of Ecology

ADDRESS: Olympia, Washington

PHONE NO: (206) 407-7239

PERSON

CONTACTED: Michael Kuntz
Managing Hydrogeologist, Toxics Clean-up Program

TO: Lyle Diediker

FROM: Raymond Wayne

DATE: February 10, 1995

SUBJECT: Response To Ecology December 5, 1994 Comments
Colbert Landfill, Spokane County, Washington

1. Mike telephoned to say he reviewed my comments and is incorporating some of them into his response to Spokane County. He said he was going to FAX a second draft of his comments to me for my review. He will call me next week to discuss the comments.

2. He said that he may request my participation in an upcoming meeting with Spokane County, but he needs to talk to Neil about that. A telephone link to the meeting is a possibility.

3. We discussed the compliance monitoring wells which are located within the capture zone of the southern and western extraction wells. Mike is viewing the well locations in the context of compliance with Consent Decree requirements.



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AGENCY: State of Washington
Department of Ecology

ADDRESS: Olympia, Washington

PHONE NO: (206) 407-7239

PERSON
CONTACTED: Michael Kuntz
Managing Hydrogeologist, Toxics Clean-up Program

TO: Lyle Diediker

FROM: Raymond Wayne

DATE: February 9, 1995

SUBJECT: Response To Ecology December 5, 1994 Comments
Colbert Landfill, Spokane County, Washington

1. Mike sent me a FAX of his draft review comments on Spokane County's comment responses for my review. I called him after reviewing his FAX. We discussed Spokane's responses and Mike's draft. I said that my formal review was completed, Lyle Diediker had reviewed the comments, and that I would send him a FAX of my comments by the end of the day. I suggested that he review my comments and then we could discuss both sets of review comments. Several of my comments parallel Mike's draft.

2. I mentioned my concern that the analytical data shown on Figure 1 of the comment response indicates potential migration of landfill contaminants in the upper aquifer to the domestic wells along the Little Spokane River. The figure shows 61 ppb of TCA in a domestic well just north of where a railroad track crosses the river. This concentration exceeds the highest concentration shown in the extraction wells on Figure 1. Two other wells and a spring sample along the river also contained TCA. These data suggest that landfill constituents may be migrating to the west and are not controlled by the southern extraction system or site geology. Comment response Figure 5 does not provide ground water elevation contours in this area of interest.

3. The analytical and ground water elevation data presented in the comment

response (and in previous documents) were collected at different time intervals. The ground water elevation data presented on the figures encompasses a smaller portion of the site than the analytical data. I suggested that the area encompassed by the two types of data should be the same to assist interpretation.

4. We discussed the locations of the compliance monitoring wells in reference to the capture zone and reported drawdowns in those wells.



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PHONE NO: (206) 407-7239

PERSON

CONTACTED: Michael Kuntz
Managing Hydrogeologist, Toxics Clean-up Program

TO: Lyle Diediker

FROM: Raymond Wayne

DATE: February 2, 1995

SUBJECT: Response To Ecology December 5, 1994 Comments
Colbert Landfill, Spokane County, Washington

1) I mentioned that Lyle Diediker asked me to review the comment response, and asked if there were any specific elements Mike wanted me to focus on. Mike did not identify any specific concerns for my review. He requested written review comments to be sent to him within two weeks. I said I would call him early next week to up-date him, and forward my written comments to him through Lyle.

2) I said my review was not complete, but suggested the following points:

*The response to General Comment 1 and 2 state that the model is not used for compliance purposes. The response indicated the model will be used as a management tool. In the response to General Comment 3, the model is used to defend the compliance wells which were identified in the Groundwater Monitoring Plan as being outside the capture zone. If the model is not for compliance purposes, compliance issues should be addressed independent of the model. If the model is proposed for compliance purposes, then the issue of how representative the model is of site conditions must be resolved to the satisfaction of the regulatory agencies.

*I suggested (not recommended) that Ecology and EPA may want to consider collecting samples downgradient of the capture zone independent of the PRP's

monitoring activities. This sampling event would be designed to determine if a portion of the contaminant plume was migrating past the extraction wells and not being detected by the monitoring wells (MWs) due to the location of the MWs in the extraction well capture zone. The samples could be analyzed for indicator analytes, with the PRPs potentially receiving split samples. If the analyses show site contaminants, cost recovery for the sampling could be initiated.

*I mentioned that I was sensitive to previous discussions between Ecology and EPA and the PRPs. My review will examine the comment responses to see if Ecology and EPA can revisit issues of interest to them based on provisions in the Record of Decision (ROD) and current documents. Analytical and hydraulic head data may have been collected, subsequent to discussions with the PRPs, which provide an opportunity to evaluate current remediation plans consistent with provisions of the ROD. If current data presents a different picture than the data available at the time of the earlier discussions, there may be grounds for revisiting the issues.